

WHAT IS CLAIMED IS

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1. A working fluid which is supplied to a working point where
a working of a workpiece is performed with the working fluid,
comprising:

a solvent; and

10 microcapsules filled with liquid-state substances, said
microcapsules being dispersed in the solvent.

15 2. The working fluid of claim 1, wherein said microcapsules
have an average particle size ranging from 0.1 μm to 1000 μm .

20 3. A working process which performs a working of a
workpiece with a working fluid, the working fluid containing a
solvent and microcapsules filled with liquid-state substances, the
25 microcapsules being dispersed in the solvent, comprising the steps

of:

supplying the working fluid to a working point of the
workpiece; and

performing a cutting process of the workpiece at the working
5 point while supplying the working fluid to the working point.

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4. A working process which performs a working of a
workpiece with a working fluid, the working fluid containing a
solvent and microcapsules filled with liquid-state substances, the
microcapsules being dispersed in the solvent, comprising the steps
of:

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supplying the working fluid to a working point of the
workpiece; and

performing a grinding process of the workpiece at the working
point while supplying the working fluid to the working point.

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5. A working process which performs a working of a
workpiece with a working fluid, the working fluid containing a
25 solvent and microcapsules filled with liquid-state substances, the

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microcapsules being dispersed in the solvent, comprising the steps of:

- forming a mixture of the working fluid and abrasive particles;
- supplying the mixture of the working fluid and the abrasive
- 5 particles to a working point of the workpiece; and
- performing a polishing process of the workpiece at the
- working point while supplying the mixture to the working point.

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6. A working process which performs a working of a workpiece with a working fluid, the working fluid containing a solvent and microcapsules filled with liquid-state substances, the

15 microcapsules being dispersed in the solvent, comprising the steps of:

- supplying the working fluid to a working point of the
- workpiece; and
- performing a plastic deformation process of the workpiece at
- 20 the working point while supplying the working fluid to the working
- point.

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7. A method of production of a working fluid which is supplied to a working point where a working of a workpiece is performed with the working fluid, comprising the steps of:

producing microcapsules that are filled with liquid-state substances; and

mixing the microcapsules and a solvent so that the microcapsules are dispersed in the solvent to form the working fluid,

wherein, in said producing step, a process, which is selected from the group including at least a surface polymerization process, an "in situ" polymerization process, a coacervation process, an immersion hardening/coating process and an immersion drying process, is performed to produce the microcapsules filled with the liquid-state substances.

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